

## Photoconductors: Spitzer and Beyond

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Photoconductor detectors have been the primary far-infrared sensors for space astronomy for over two decades. The MIPS instrument on the Spitzer Space Telescope features large arrays at 24, 70, and 160  $\mu\text{m}$ . We present details of these detector arrays with an emphasis on in-orbit performance. The 24  $\mu\text{m}$  band uses a  $128 \times 128$  Si:As Blocked Impurity Band, and it has met all the expected performance goals. The  $32 \times 32$  Ge:Ga array at 70  $\mu\text{m}$  suffers from excess noise in half the array due to faulty cryostat cable, but it is still producing excellent astronomical data. The  $2 \times 20$  Stressed Ge:Ga array is operating within a factor of two pre-launch predictions. We describe adjustments to the observing strategy to account for on-orbit conditions. Examples of representative observations will be presented. The progress in developing the next generation of arrays for Herschel and SOFIA will be discussed, and the needs for more distant facilities like SAFIR will be covered.